



## Gimbal – Cardanically adjustable

### **Recessed spotlight with a compact high-precision swivel mechanism**

Gimbal suspension is widely prevalent in technology and is a concept that is as old as Leonardo da Vinci, who suggested its use for nautical compasses. In lighting technology, gimbals are an elegant solution for pinpoint adjustment of the luminaires. Gimbal recessed spotlights transform this principle into the era of digital lighting – with a highly precise and convenient swivel mechanism in a compact design that stands apart from conventional approaches and enables

shallow recess depths. Different sizes and wattages for the full spectrum of light distributions make Gimbal ideal as a system for differentiated lighting design with focus on the high-contrast presentation of objects. With its unique technoid appearance in the ceiling, Gimbal lends itself perfectly to retail projects as well as to museums and other public buildings.



## Structure and characteristics

The features described here are typical of products in this range. Special versions may offer additional or varying features. A comprehensive description of the features of individual products can be found on our website.

### 1 ERCO Spherolit lens

- Light distributions: narrow spot, spot, flood, wide flood, extra wide flood, oval flood or wallwash
- Oval flood 360° rotation

### 2 ERCO LED-module

- High-power LEDs: warm white (2700K or 3000K) or neutral white (3500K or 4000K)
- Collimating lens made of optical polymer

### 3 Mounting ring

- Covered mounting detail
- Fixing for ceiling thicknesses of 1–25mm (size 4) or 1–30mm (size 5–7)
- Polymer, white
- For flush mounting: mounting ring to be ordered separately, fixing for ceiling thicknesses of 12.5–25mm

### 4 Luminaire

- Black
- Cast aluminium, powder-coated
- Gimbal suspension: polymer
- 0°–40° tilt

### 5 Control gear

- Switchable, phase dimmable, DALI dimmable or Casambi Bluetooth
- Phase dimmable version: Dimming with external dimmers possible (trailing edge)

### Variants on request

- Connection: 3- or 5-pole plug with connection cable (Wago or Wieland)
  - Housing: 10,000 further colours
- Please contact your ERCO consultant.



Design and application:  
[www.erco.com/gimbal-r](http://www.erco.com/gimbal-r)

# Gimbal Recessed spotlights



**Oval flood freely rotatable**  
With luminaires with round light emission, the oval flood Spherolit lens can be freely rotated to align the light optimally to various objects.



**Cardanic suspension**  
Especially with high ceilings, small swivel movements have a strong effect on the position of the light beam - cardanic suspension facilitates precise luminaire alignment in such cases.



**Covered or flush mounting detail**  
As standard, all recessed luminaires have overlapping installation details. Flush mounting rings are available as accessories.



**Shallow recess depth**  
In compact installation situations, every millimetre is decisive with the recess depth of a luminaire. ERCO has thus developed special luminaires for shallow recess depths that guarantee very good quality of light even in very tight installation conditions.

## Special characteristics



Oval flood, freely rotatable



Gimbal suspension



Flush or covered mounting detail



Shallow recess depth



ERCO high-power LEDs



Efficient Spherolit technology



Different light distributions



Different light colours



Excellent thermal management



EMC-optimised



Various construction sizes



Pivotable through 40°



Tool-free mounting



Accessory for maximum visual comfort



Switchable



Phase dimmable



DALI dimmable

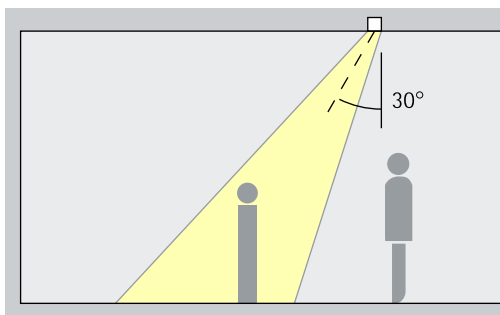


Casambi Bluetooth

# Gimbal Recessed spotlights – Luminaire arrangement

## Recessed spotlights

Narrow spot, Spot, Flood

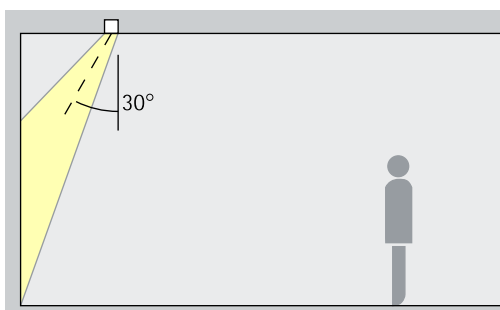


**Accentuation**  
Gimbal recessed spotlights accentuate artwork, products and architectural details effectively. The ideal angle of tilt ( $\alpha$ ) for this is around 30°. The object is modelled without distorting the effect as a result of excessive shadowing. It also prevents shadows cast by the observer.

Arrangement:  $\alpha = 30^\circ$

## Recessed floodlights

Wide flood, Extra wide flood, Oval flood

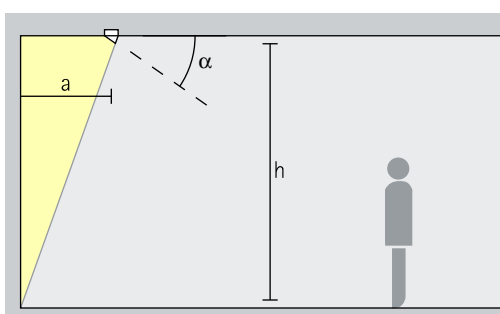


**Washlighting**  
The ideal angle of tilt ( $\alpha$ ) for floodlighting objects with a long, square shape, e.g. pictures, sculptures or merchandise displays, is around 30°.

Arrangement:  $\alpha = 30^\circ$

## Recessed lens wallwashers

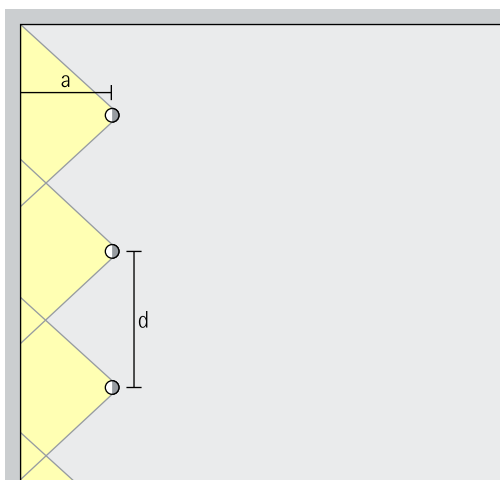
Wallwash



**Wallwashing**  
For good longitudinal uniformity, the spacing ( $d$ ) of Gimbal lens wallwashers may be up to 1.2 times the offset from the wall ( $a$ ).

Arrangement:  $d \leq 1.2 \times a$

Optimal wall offset and luminaire spacing values are indicated in the wallwasher tables on the product data sheets.



For uniform vertical illuminance, the distance ( $a$ ) of Gimbal lens wallwashers from the wall should be around one third of the wall height ( $h$ ). This results in an angle of tilt ( $a$ ) of approx. 35°.

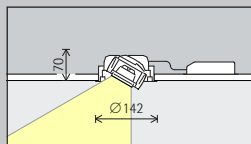
Arrangement:  $a = 1/3 \times h$  bzw.  $\alpha = 35^\circ$

Melissa Flagship Store, Singapore.  
Architecture:  
LAANK, Singapore.  
Photography:  
Jotham Koh Meng Kwang.

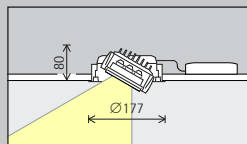


# Gimbal Recessed spotlights

## Construction size



Size 4



Size 5

## LED module Maximum value at 4000K CRI 82

|             |                          |
|-------------|--------------------------|
| 6.1W/786lm  | 2W/262lm (Narrow spot)   |
| 9.3W/1107lm | 3.1W/369lm (Narrow spot) |

|              |                          |
|--------------|--------------------------|
| 12.1W/1572lm | 4W/525lm (Narrow spot)   |
| 18.6W/2213lm | 6.2W/738lm (Narrow spot) |

## Light colour

|  |              |  |              |
|--|--------------|--|--------------|
|  | 2700K CRI 92 |  | 3500K CRI 92 |
|  | 3000K CRI 92 |  | 4000K CRI 82 |
|  | 3000K CRI 97 |  | 4000K CRI 92 |

|  |              |  |              |
|--|--------------|--|--------------|
|  | 2700K CRI 92 |  | 3500K CRI 92 |
|  | 3000K CRI 92 |  | 4000K CRI 82 |
|  | 3000K CRI 97 |  | 4000K CRI 92 |

## Light distribution

| Recessed spotlights       | Recessed floodlights |
|---------------------------|----------------------|
| Narrow spot               | Wide flood           |
| Spot                      | Extra wide flood     |
| Flood                     | Oval flood           |
| Recessed lens wallwashers |                      |
| Wallwash                  |                      |

| Recessed spotlights       | Recessed floodlights |
|---------------------------|----------------------|
| Narrow spot               | Wide flood           |
| Spot                      | Extra wide flood     |
| Flood                     | Oval flood           |
| Recessed lens wallwashers |                      |
| Wallwash                  |                      |

## Control

|  |                |  |                   |
|--|----------------|--|-------------------|
|  | Switchable     |  | DALI              |
|  | Phase dimmable |  | Casambi Bluetooth |

|  |                |  |                   |
|--|----------------|--|-------------------|
|  | Switchable     |  | DALI              |
|  | Phase dimmable |  | Casambi Bluetooth |

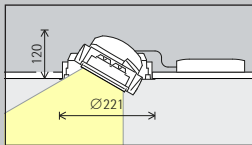
## Colour (housing)

|  |                  |
|--|------------------|
|  | Black            |
|  | 10,000 colours * |

|  |                  |
|--|------------------|
|  | Black            |
|  | 10,000 colours * |

## Accessories

|  |                             |  |                                      |  |                  |
|--|-----------------------------|--|--------------------------------------|--|------------------|
|  | Lenses                      |  | Concrete mounting enclosure          |  | Compensation set |
|  | Snoot                       |  | Mounting ring                        |  | Cover ring       |
|  | Cross-baffle                |  | Spacer plate                         |  |                  |
|  | Honeycomb anti-glare screen |  | Mounting plate for panelled ceilings |  |                  |



Size 7

|              |                            |
|--------------|----------------------------|
| 2.3W/3144lm  | 8.1W/1048lm (Narrow spot)  |
| 37.3W/4427lm | 12.4W/1476lm (Narrow spot) |

|  |              |  |              |
|--|--------------|--|--------------|
|  | 2700K CRI 92 |  | 3500K CRI 92 |
|  | 3000K CRI 92 |  | 4000K CRI 82 |
|  | 3000K CRI 97 |  | 4000K CRI 92 |

| Recessed spotlights       | Recessed floodlights |
|---------------------------|----------------------|
| Narrow spot               | Wide flood           |
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| Flood                     | Oval flood           |
| Recessed lens wallwashers |                      |
| Wallwash                  |                      |

|  |                |  |                   |
|--|----------------|--|-------------------|
|  | Switchable     |  | DALI              |
|  | Phase dimmable |  | Casambi Bluetooth |

|  |                  |
|--|------------------|
|  | Black            |
|  | 10,000 colours * |

\* available on request

Article numbers and planning data:  
[www.erco.com/016053](http://www.erco.com/016053)

Design and application:  
[www.erco.com/gimbal-r](http://www.erco.com/gimbal-r)





Helsinki Opera House. Architecture: Eero Hyvämäki, Jukka Karhunen, Risto Parkkinen, Helsinki; Electrical Planning: Reijo Lehtimäki, Ramboll Finland. Lighting design: Kaisa Lindstedt, Ramboll Finland; Electrical Planning: Reijo Lehtimäki, Ramboll Finland. Photography: Tomasz Majewski.